4. Subbasin Assessment – Summary of Past and Present Pollution Control Efforts

Past and present pollution control activities in the Goose Creek Subbasin have involved both public and private entities. Some of the activities have included changes in grazing management regimes, building off-creek water troughs, fencing, and reducing numbers of animals or time spent on the range. The next several pages contain information on pollution control efforts submitted by the Double Diamond Ranch, USFS and BLM. These write-ups explain the efforts these land managers have taken to improve water quality in the Goose Creek Subbasin.

DOUBLE DIAMOND RANCH EFFORTS TO IMPROVE WATER QUALITY

By Carl Austin.

Double Diamond Ranch has a lengthy segment of Goose Creek, plus a segment of Cold Creek. Both are 303-d listed streams. This short report presents what has been done in the past few years to improve the quality of these streams as they pass through land the ranch controls or leases.

1. Livestock impacts on creek banks and in creeks have been reduced significantly in the following ways.

    A. Cold Creek – we have permanently excluded livestock from all but a very short segment of the creek. This has resulted in a flourishing riparian system. The short stretch where livestock still access Cold Creek is a crossing and a stock-water point. It is our intent in the near future to convert this to a protected crossing by installing a culvert, fences, and water trough.

    B. Main Goose Creek – through a HIP [Habitat Improvement Program] Project with Idaho Department of Fish and Game we have fenced the entire riparian zone of Goose Creek on both our private land and on our state lease. We briefly graze inside the fences in the late summer to assist with weed control. Except for this, cattle are normally excluded from the creek and its banks.

    C. Irrigation Cross Ditches – we have two cross ditches that extend from the west side of our meadows to Goose Creek. We have now fenced cattle out of the main cross ditch totally and plan to do the same on the shorter cross ditch near the main house. This shorter ditch has been protected most of the time by a temporary electric fence. These fences keep the cattle out of the water, keep them from breaking down the ditch banks, and keep the water free of manure and mud. From a cattleman's perspective, it is worth noting that fencing riparian and ditch banks also greatly reduces the exposure of our cattle to liver flukes.

2. Erosion and sedimentation impacts have been historically severe on the ranch. In a land of periodic flashfloods, gully formation is extensive. We have done the following to control or at least reduce these problems.

    A. Filter strips – by fencing off the main creek banks we now have the beginning of effective filter strips for the entire length of Goose and Cold Creeks on the ranch.

    B. Plantings – we have planted thousands of willows, birch, cottonwood, dogwood and some conifers along main Goose Creek. Initial success was low due to pervasive Tordon residue in the creek banks from prior owner's efforts to kill willows, but with the passage of time, over 7 years required, the plantings are beginning to take hold and flourish. Obviously, we have a collateral spurge problem to deal with so as to not kill the riparian we are trying to establish.

    C. Check-dams – we build large numbers of small check-dams, both ourselves and as youth group environmental activities. These small rock dams are proving very successful with many already silt filled and showing grass establishment on the new stable surface.

    D. EQUIP PROJECT – we have established an EQUIP [Environmental Quality Incentive Program] Project on the Cave Gulch side of the ranch. This project includes protective fencing, plantings, and the construction of large erosion control structures in both Cave Gulch and Owens Corral Creek. This will reduce the vast amounts of mud being washed down canyon into Goose Creek and the Oakley Reservoir.

    E. Natural Beaverdams – The ranch has allowed three natural beaverdams to become established on Goose Creek. These dams have raised the water table and have provided an extensive sediment trap.

3. Bacterial contamination of a non-livestock source was of concern to us when we purchased the ranch several years ago. We have taken the following steps to mitigate this potential problem.

    A. Cold Creek House – this house had a septic tank and drain field excessively close to Cold Creek. We have had an entirely new septic system installed, which now protects Cold Creek from this pollution source.

    B. Homestead House – this house used a pit privy. Although not too close to Cold Creek, it still offered a possible source of pollution. We replaced the privy with indoor plumbing and a new up to code septic system. This potential source of pollution has been eliminated.

    C. Main Ranch House – the septic system for the main ranch house was totally inadequate. The shallow leach field would flood out when irrigating the meadows, with leachate spreading on the surface with the potential to flow into

Goose Creek. The leach field was moved to a proper location free of flooding and a new leach field up to code standards built, eliminating this problem.

4. Nutrient management – fields are routinely analyzed prior to fertilizing, so that excess fertilizing is not a problem

5. Runoff – to protect the quality of Goose Creek and to capture and use scarce and expensive irrigation water, we are now in the process of excavating large tail water ponds. These will capture tail water before it can get into Goose Creek and enable us to pump the water on to a formerly dry farmed area. Our biggest concern with doing this is not to create a trace element and salts build up as a result of controlling runoff. We have no desire to create a Kesterson type of situation.

6. Junk in the Creek – we have removed large amounts of just plain junk from Goose Creek and a surprising amount from Cold Creek. Largely an issue of aesthetics, we feel this is worth doing. We have removed appliances, vast amounts of baler twine, tires, old machinery, oil cans, tangles of old fencing, scrap lumber, etc. and more junk comes in with every spring flood. We fish it out of the creek and haul it to the dump routinely.

7. We hope that this short presentation is of interest. It shows what can be done, not so much as a burst of effort, but rather as a steady continuous striving to improve the ranch and also to improve the public's perception of cattle ranching.

UNITED STATES FOREST SERVICE EFFORTS TO IMPROVE WATER QUALITY

The following pages concerning the USFS pollution control activities were taken from a document prepared by Trudy Flock of the USFS Burley Ranger District for the TFRO-DEQ.

Project Name	USFS Division	Document &/or year	Allotment	Pollution Control Measure	Location	Subbasin
Projects files- Structural, Non-Structural, and Water						
Lower Fish Creek Spring Development	Albion	1997	Fish Creek C&H	One trough and one headbox with approximately 50 yards of buried pipeline to protect the spring source by providing water away from the source and by providing a water source away from fish creek drainage …to keep livestock more evenly distributed on the lower portion of the allotment and to keep livestock from lingering along Fish Creek	T15S R23 E Section 10	Goose Creek
From Allotment Files						
Goose Creek Allotment File	Cassia	12/20/91	Goose Creek C&H	Exclosure with water gaps on the lower three miles of Trout Creek (below narrows). 200 acre exclosure at the head of Right Hand Fork Beaverdam Creek to protect watershed above active gullies in that area.	T16S R19E Sections 24 and 25	Goose Creek
Oakley Valley Allotment File	Cassia	1995-2002 Annual Operating Instructions	Oakley Valley C&H	Riparian area utilization managed so that the residual stubble height at the end of the growing season or grazing season is at least four inches. Salt not placed within .25 miles of water		Goose Creek
Goose	Cassia	1997-1998	Goose	Utilization of riparian species will be managed so the residual		Goose

Project Name	USFS Division	Document &/or year	Allotment	Pollution Control Measure	Location	Subbasin
Creek Allotment File		Annual Operating Instructions	Creek C&H	herbage stubble height at the end of the growing or grazing season is at least 4-6 inches.		Creek
Goose Creek Allotment File	Cassia	1996 Annual Operating Instructions	Goose Creek C&H	Rest upper Beaverdam Unit for two growing season due to a 1995 fall wild land fire. Salt not place within .25 miles of water		Goose Creek
Goose Creek Allotment File	Cassia	1992	Goose Creek C&H	Dry Gulch riparian exclosure: 2 mile	T16S R20E Sections 1 and 2	Goose Creek?
Goose Creek Allotment File	Cassia	About 1992	Goose Creek C&H	Trapper Creek Pasture – approximately a 60 acre exclosure. Provides unit integrity for a portion of the riparian corridor, Squaw Creek and Rodeo Creek Units		Goose Creek
Goose Creek Allotment File	Cassia	1994-1995 Annual Operating Instructions	Goose Creek C&H	Salt not placed within .25 miles of water		Goose Creek
Trapper Creek S&G Trout Creek S&G Badger Mt. S&G	Cassia	1997 Annual Operating Instructions	Trapper Creek S&G Trout Creek S&G Badger Mt. S&G	Specific Instructions to follow: -Sheep should not be bed down, day or night, within 200 yards of any running stream or spring. -Sheep should come in to drink and move away from water as soon as finished. -every effort should be made to avoid trampling and other impacts to waterway. -Dead sheep within 300 ft. of a stream must be promptly removed and disposed of.		Goose Creek

Project Name	USFS Division	Document &/or year	Allotment	Pollution Control Measure	Location	Subbasin
Little Fork S&G? Falls/Swanty C&H			Little Fork S&G? Falls/Swanty C&H	General Instructions: -Salt not placed within .25 miles of water		
Fish Creek Allotment File	Albion	1991 Fish Creek C&H Allotment Grazing Management Revision	Fish Creek C&H	See Attachment D for "Forest Wide Standards and Guides for Riparian Areas"		Goose Creek
Fish Creek Allotment File	Albion	1997-2002 Annual Operating Plan	Fish Creek C&H	Riparian Sites, Fish Creek: Sedge Communities (wet sites) -5 in. stubble height (20-35% utilization) -Bluegrass meadow communities -4 in. stubble height (30-40% utilization) -Stream banks -20% stream bank trampling Compliance with the stubble height standards listed above should ensure that stream bank trampling does not exceed 20% for these sites. However, if stream bank trampling exceeds 20% before stubble heights are achieved, livestock must be removed.		Goose Creek

Project Name	USFS Division	Document &/or year	Allotment	Pollution Control Measure	Location	Subbasin
Basin Allotment File	Albion	2000-2002 Annual Operating Plan	Basin C&H	Allowable use levels for riparian vegetation associated with these streams is 30% (This equates to about a 4-6 inch stubble height). All stream banks no greater than 20% stream bank trampling (noted in 200&2001) Compliance with the stubble height standards listed above should ensure that stream bank trampling does not exceed 20% for these sites. However, if stream bank trampling exceeds 20% before stubble heights are achieved, livestock must be removed.		Goose Creek
Basin Allotment File	Albion	1997 - 1999 Annual Operating Plan	Basin C&H	Riparian Areas: Lake Creek, Summit Creek, Mill Creek Units 30% use of all species. The objective is to maintain or improve the long-term ecological condition of these areas, so it is necessary to adjust the level of allowable use by livestock. As a result, the allowable use levels for riparian vegetation associated with these streams is 30% (This equates to about 4-6 inch stubble height (6 inches-1998, 4 inches-1997)) All stream banks no greater than 20% stream bank trampling		Goose Creek

Project Name	USFS Division	Document &/or year	Allotment	Pollution Control Measure	Location	Subbasin
				Compliance with the stubble height standards listed above should ensure that stream bank trampling does not exceed 20% for these sites. However, if stream bank trampling exceeds 20% before stubble heights are achieved, livestock must be removed.		
Basin Allotment File	Albion	1996Annual Operating Plan	Basin C&H	Riparian Areas: Lake Creek, Summit Creek, Mill Creek Units 45% use of all species. The objective is to maintain or improve the long-term ecological condition of these areas, so it is necessary to adjust the level of allowable use by livestock. As a result, the allowable use levels for riparian vegetation associated with these streams is 30% (This equates to about 4 inch stubble height)		
Land Creek Allotment File	Albion	1991 Addendum #1 to the 1978 Approved AMP on the Land Creek C&H Allotment	Land Creek C&H	See Attachment E for "Standards and Guides for Riparian Areas"		Goose Creek
Willow Creek Allotment	Albion	1991 Addendum #1 to the 1981	Willow Creek C&H	See Attachment F for "Standards and Guides for Riparian Areas"		

Project Name	USFS Division	Document &/or year	Allotment	Pollution Control Measure	Location	Subbasin
File		Approved AMP on the Willow Creek C&H Allotment				
Willow Creek Allotment File	Albion	1997-2002 Annual Operating Plan	Willow Creek C&H	Riparian Sites, Smith Creek, Robinson Creek and Willow Creek: Sedge Communities (wet sites) -5 in. stubble height (30-35% utilization) -Bluegrass meadow communities -4 in. stubble height (30-40% utilization) -Stream banks -20% stream bank trampling Compliance with the stubble height standards listed above should ensure that stream bank trampling does not exceed 20% for these sites. However, if stream bank trampling exceeds 20% before stubble heights are achieved, livestock must be removed.		
From Timber/Silviculture Files						
Post and Poles		1995 Permit: District wide for dead poles only		-No skidding across live streams. -If skidding with equipment or horses and a skid trail develops, it must be properly water-barred	District-wide	Raft River and Goose Creek

Project Name	USFS Division	Document &/or year	Allotment	Pollution Control Measure	Location	Subbasin
Post, Poles and Ornamentals		1993		Roads will not be traveled when wet and damage may occur.	Designated post and pole areas	
Burned Area Emergency Rehabiliatation (BAER)						
Worthington Fire Baer Project	Cassia	2001 Worthington Fire- Baer Burned Area Report (Interim)		555 NFS Acres Burned -Limit erosion by providing adequate road drainage and by seeding where no regrowth or seed source is expected, and to be sure that the burn will not allow more encroachment of noxious weeds. Land Treatments – helicopter seed 200 acres of burned land with little or no grass, with 3 native grass species in a previous juniper monoculture Roads and Trail Treatments- One mile of low standard roads over the 2.5 miles need water bars and other drainage to limit erosion associated with roads. 7 Structures: two miles of temporaray fence will be installed to protect the burned area from grazing for three growing seasons. Livestock needed to be removed as soon as possible, to protect beginning sprouts of grass, etc. In the burned area.		Goose Creek
West	Cassia	2000 West		Fire Suppression Damages Repaired:		Goose

Project Name	USFS Division	Document &/or year	Allotment	Pollution Control Measure	Location	Subbasin
Basin Fire Baer Project		Basin Fire – Bare Burned Area Report (Initial Request		15 miles of fireline water bars repair 4 water catchments in system roads to provide drainage. These were excavated during suppression activities.		Creek
West Basin Fire Baer Project	Cassia	2000 West Basin Fire – BAER Burned Area Report (Initial Request		16,392 Idaho NFS Acres In both Goose Creek and Salmon Falls Creek– Goose Creek acres unknown. Land Treament : Aerial seed 900 acres of Wyoming sagebrush to expedite the re-establishment of this key sage grouse and sharp tail grouse component.. Cattle will be rested a minimum of three growing season.. Immediate replacement of 12 miles of fence destroyed by the fire will be necessary to keep the re-seeded area protected from livestock grazing. Aerial seed all dozer lines (23 miles). Construct water bars and close off access points after re-seeding efforts are completed. Road Treatment: Repair four water bars that were dug too deep and without proper drainage.		Goose Creek
Coal Banks Fire Baer Project		2000 Coal Banks Fire – BAER Burned Area Report (Initial Request)		Fire Suppression Damages Repaired: 8.5 miles of fireline water bars Dry Gulch exclosure Fence – about .25 mile		Goose Creek
Coal		2000 Coal		1965 NFS acres burned		Goose

Project Name	USFS Division	Document &/or year	Allotment	Pollution Control Measure	Location	Subbasin
Banks Fire Baer Project		Banks Fire – BAER Burned Area Report (Initial Request)		Road Treatment: Dozer lines on Forest Service lands have been stabilized and seeded with native grasses as part of the suppression damage control. Structures: Four miles of temporary fence will be installed to protect the burned area from grazing for three growing seasons.		Creek

The following is a list of provisions that would have been included in most timber sale contracts.

WO-CT6.34 – Sanitation and Servicing (12/00). Purchaser shall take all reasonable precautions to prevent pollution of air, soil, and water by Purchaser's Operations. If facilities for employees are established on Sale Area, they shall be operated in a sanitary manner. Purchaser shall not service tractors, trucks, or other equipment on National Forest lands where servicing is likely to result in pollution to soil or water. Purchaser shall remove from National Forest lands all refuse resulting from use, servicing, repair, or abandonment of equipment. In the event that Purchaser's Operations or servicing of equipment result in pollution to soil or water, Purchaser shall conduct cleanup to restore the polluted site to the satisfaction of Forest Service.

WO-CT6.342 – Hazardous Substances (5/01). Purchaser shall notify Forest Service, in an annual Operating Schedule, of any hazardous substances, as defined in 29 CFR 1910.120, to be used on Sale Area and will have Material Safety Data Sheets for those materials available at the landing and any road construction site. All such materials shall be labeled in accordance with Federal and State regulations.

Before commencing operations Purchaser shall provide a Hazardous Substances Plan. The Plan must include, but is not limited to, hazardous substances to be used in the Sale Area and identification of Purchaser's representatives responsible for supervising initial containment action for releases and subsequent cleanup.

Purchaser shall not release abnormal quantities of petroleum products or other hazardous substances on land or into rivers, streams, or impoundments or into natural or man-made channels leading thereto. Purchaser will take whatever initial action may be safely accomplished to contain all abnormal releases. Purchaser shall conduct cleanup, to the satisfaction of Forest Service, to restore the site polluted by the abnormal release of petroleum products or other hazardous substances resulting from Purchaser's Operations, including releases caused by Purchaser's employees and contractors. Purchaser shall pay all damages and costs incurred by the Government.

Purchaser shall immediately notify appropriate agencies, including Contracting Officer or designated representative, of all abnormal spills or leaks or other releases of petroleum products or other hazardous substances on or in the vicinity of National Forest land that are caused by Purchaser's employees, directly or indirectly, as a result of Purchaser's Operations.

Purchaser shall maintain all equipment operating on Sale Area in good repair and free of abnormal leakage of lubricants, fuel, coolants, and hydraulic fluid. Purchaser shall properly dispose of all contaminated soil, vegetation, debris, vehicle oil filters (drained of free-flowing oil), oily rags, and waste oil in accordance with local, State, and Federal regulations off of Government property and shall transport such substances in accordance with State and Federal regulations.

Purchaser shall furnish oil-absorbing mats, approved by Forest Service, for use under all stationary landing equipment or equipment being serviced to prevent leaking or spilled petroleum-based products from contaminating soil and water resources.

RO-CT6.344 - Prevention of Oil Spills (Idaho Forests) (1/01). If Purchaser maintains storage facilities for petroleum or petroleum products on Sale Area, Purchaser shall take appropriate preventive measures to ensure that any spill of such petroleum or petroleum products does not enter any stream or other waters of the United States or any of the individual States.

Petroleum or petroleum product storage containers with capacities of more than 200 gallons, but less than 1,320 gallons, stationary or mobile, shall be located no closer than 100 feet from stream, watercourse, or area of open water. Dikes, berms, or embankments shall be constructed to contain the volume of petroleum products stored within the tanks. Diked areas shall be sufficiently impervious and of adequate capacity to contain spilled petroleum products.

If the total petroleum or petroleum products storage exceeds 1,320 gallons, or if any single container exceeds a capacity of 660 gallons, Purchaser shall prepare a Spill Prevention Control and Countermeasures (SPCC) Plan. Such plan shall meet applicable EPA requirements (40CFR 112), including certification by a registered professional engineer.

RO-CT6.50# - Streamside Management Zones (11/98). A Streamside Management Zone (SMZ) is a zone that contains riparian vegetation and other special characteristics. Areas identified as Streamside Management Zones (SMZ's) are shown on the Sale Area Map and designated Timber designation, conduct of logging, and/or slash treatment may differ in the SMZ from the rest of the unit. Unless otherwise agreed to in writing and notwithstanding the contract requirements otherwise applicable to each cutting unit, the following special requirements apply to the SMZ of the cutting units specified below:

Streamside Management	Cutting Unit(s)	Zone Requirements

RO-CT6.6# - Erosion Prevention and Control (11/98).

A. Purchaser shall locate Temporary Roads on locations approved by the Forest Service. Such location shall include the marking of road centerline or grade-line and the setting of such construction stakes as are necessary to provide a suitable basis for economical construction and the protection of National Forest lands.

B. Skidding with tractors within _____ feet of live streams shall not be permitted except in places designated in advance by Forest Service, and in no event shall skid roads be located in live or intermittent streamcourses. Skid trails shall be located high enough out of draws, swales, and valley bottoms to permit diversion of runoff water to natural undisturbed forest ground cover.

C. Prior to periods of accelerated water runoff, especially during the spring runoff and periods of heavy rainfall, Purchaser shall inspect and open culverts and drainage structures, construct special cross ditches for road runoff, and take other reasonable measures needed to prevent soil erosion and siltation of streams.

D. Temporary Road surface width shall be limited to truck bunk width plus four (4) feet, except for needed turnouts which shall not exceed two (2) times the bunk width plus four (4) feet. If shovels or cranes with revolving carriage are used to skid or load, Temporary Road surface width equal to track width plus tail swing shall be permitted.

E. Unless otherwise agreed in writing, Purchaser shall keep erosion control work current with his operations under the sale and in any case not later than 15 days after completion of skidding on each payment unit or cutting unit.

RO-CT6.601# - Erosion Control Seeding (11/98). Following completion of skidding and yarding operations in an area, Purchaser shall seed and fertilize all exposed areas of raw soil as designated by the Forest Service on skid trails, landings, firebreaks, slides, slumps, Temporary Roads and traveled ways of Specified Roads following closure specified in CT5.51#. Soil on areas to be seeded shall be left in a roughened condition favorable to the retention and germination of the seed. Scarification of traveled ways on Specified Roads listed above shall be to a minimum depth of _____ inches and a maximum depth of _____ inches. Seed and fertilizer shall be spread evenly at the rate of_____ pounds of seed and _____ pounds of fertilizer per acre. When fertilizer and seed are applied in separate operations, the second operation shall be carried out within 72 hours of the first. Seeding shall be done during the period _____ to _____ and under the above specified conditions unless otherwise approved. The kinds and amounts of seed to be sown in terms of pure live seed (PLS) shall be: _____ Species of Seed PLS Pounds Per Acre

All seed purchased will be certified to be free of the noxious weed seeds from weeds listed on the current "All States Noxious Weeds List." Test results from a certified seed analyst and seed analysis labels attached to the bags will be provided to the Forest Service. The following kinds and amounts of standard commercial fertilizer shall be used with guaranteed analysis of contents clearly marked on containers: Type of Fertilizer Pounds Per Acre.

Road provisions; the specific restrictions vary by sale. (Note: CT5.12# has been used frequently to control use on roads in meadows or other wet areas).

WO-CT5.12# - Use of Roads by Purchaser (6/99). Purchaser's use of existing roads identified on Sale Area Map by the following codes is prohibited or subject to restrictive limitations, unless agreed otherwise:

Code	Use Limitations
X	Hauling prohibited
R	Hauling restricted
U	Unsuitable for hauling prior to completion of agreed reconstruction
P	Use prohibited
A	Public use restriction
W	Regulation waiver

Roads coded A will be signed by the Forest Service to inform the public of use restrictions. Purchaser's use of roads coded R, A, or W shall be in accordance with the following restrictions:

RO-CT5.124 - Existing Roads (11/98). Notwithstanding BT5.12, existing roads not shown on Sale Area Map may be used upon written agreement of use restrictions and closure requirements following completion of use.

RO-CT5.44# - Obliteration of Temporary Roads (11/98). Unless otherwise agreed in writing, temporary roads constructed to access units(s) _____, as shown on the Sale Area Map, shall be restored to original contour. This work shall include but not be limited to, ripping the surface for seeding, pulling material from the fill slope and brow of the cut slope on to the running surface of the road, removal of drainage structures, and placing slash, stumps, or cull logs on the road surface.

RO-CT5.45# - Closure of Temporary Roads (11/98). Unless otherwise agreed to in writing, temporary roads associated with the cutting unit(s) listed in the following table shall be closed using the closure method described. Unit Closure Method

RO-CT5.46# - Snow Removal (11/98). Snow removal shall be done in a manner to preserve and protect the roads to insure safe and efficient transportation and to prevent unacceptable erosion damage to roads, streams, and adjacent lands.

A. Description. Snow removal work by Purchaser shall include:

1. Removal of snow from entire road surface width including turnouts.

2. Removal of snow slides, minor earth slides, fallen timber and boulders that obstruct normal road surface width including turnouts.

3. Maintain drainage so that the drainage system will function efficiently.

B. Performance. All items of snow removal shall be done currently as necessary to insure safe, efficient transportation. Work shall be done in accordance with the following minimum standards of performance.

1. Removal of material. All debris, except snow and ice, that is removed from the road surface and ditches shall be deposited away from stream channels at agreed locations.

2. During snow removal operations, banks shall not be undercut nor shall gravel or other selected surfacing material be bladed off the roadway surface.

3. Ditches and culverts shall be kept functional during and following roadway use.

4. Snow berms shall not be left on the road surface. Berms left on the shoulder of road shall be removed and/or drainage holes shall be opened and maintained. Drainage holes shall be spaced as required to obtain satisfactory

surface drainage without discharge on erodible fills.

5. Dozers and skidders shall not be used to plow snow on system roads without written approval of Forest Service. Upon approval, dozers and skidders must be equipped with shoes or runners to keep the plow blade a minimum of _____ inches above the road surface unless specifically removed from the requirements in writing.

6. Snow must not be removed to the road surface. A minimum
inch depth must be left to protect the roadway.

7. Purchaser's damage from, or as a result of, snow removal shall be restored in a timely manner.

T.S. Contract – Division CT – Special provisions for: South Heglar Salvage Timber Sale: 1993-1994 – HUC - Raft River

Temp Roads:

Temporary roads maximum ruling grade shall not exceed 8% except short pitches for not more than 200 feet in length.
In no case shall grades be such to cause accelerated soil erosion or damage to the NFC and values.

Side ditch and/or cross drainage structures shall bee proved for permanent seeps.

Road Maintenance:

Removal of earth and debris from ditches and culverts so that the drainage systems will function efficiently at all times.
Restoration of eroded fills and repair and protection of should berms, berm outlets, stabilized waterways, vegetated slopes and other erosion control features.

Removal of Material – Maintenance Performance:

Earth, rocks, trees, brush and debris removed from Roadways and ditches shall not be deposited in stream channels or upon slope stabilization and erosion control features.

Ditches, culverts, drop inlets, trash rocks, downspouts and splatter structures shall be kept clear of earth, slash and other debris so that drainage systems will function efficiently during and immediately following periods of road use by purchases. This includes correcting and eliminating causes of erosion or plugging of the structure and actual repair of the structure and riprap if damaged.

Any washing or settling of roadway fills will be corrected promptly to prevent additional soil erosion or roadway damage should berms, berm outlets, and stabilized waterways shall be protected during road maintenance operations and if damage such structure shall be promptly restored to their original condition, including repairs and reseeding of vegetation established

to control slope erosion. No earth, rocks, or other debris shall be deposited upon any roadside slope stabilization structure or feature.

Prevention of Oil Spills:

If purchaser maintains storage facilities for oil or oil products on sale area, purchaser shall take appropriate preventative measures to ensure that any spill of such oil or oil product does not enter any stream or other waters of the US or State.

If oil/oil product >320 gallons or single container exceeds 660 gallons, the purchaser shall prepare a spill prevention and control and counter measures plan and it shall meet applicable EPA requirements.

Erosion Prevention and Control:

Forest Service shall designate and Purchaser shall construct erosion control structures in accordance with the follow items:

Specification for outsloping and Berm Removal; Equipment blade used for removing berm and cutting roadbed to form required outsloping shall be so angled that material resulting from such work will be moved toward the inside of the road. The bladed material shall then be spread over the surface of the road which will result in uniformly sloping the entire width of the road to the outside to divert water from the road surface. Where road compaction prevents equipment blades from cutting into the road, ripping shall be performed prior to blade work.

Erosion Control seed: Purchaser shall furnish and sow suitable seed where staked or otherwise marked on skid trails, firelines, landings and roadways, embankments, and fill sections of Temporary roads. Such seed composition shall be evenly spread at the rate of 10 lbs per acre in the early spring when moisture conditions are favorable, or in the early fall.

UNITED STATES BUREAU OF LAND MANAGMENT EFFORTS TO IMPROVE WATER QUALITY

The following was given to DEQ during a grazing allotment review. It was prepared by Ken Knowles of the BLM and is an example of the water quality efforts that have been undertaken by the BLM on some allotments. More information was made available through hard copy and will be included during the implementation phase.

Brief Goose Creek History

1. Historic livestock grazing usually began about April 1 and continued into late fall. The Goose Creek Unit range survey was completed in 1953. It consisted of about 70,000 acres of public lands. The results of the range survey recommended an 82% reduction of the historic grazing use.

2. The Goose Creek Unit was fenced and separated into individual or community allotments and an agreement signed regarding allotment boundaries in 1963. The Goose Creek Group allotment was established at that time and amounted to about 30,000 acres of public land. At time of this final adjudication, the unit took a 60% reduction in grazing use. The difference between the recommendation in 1953 (82%) and 1963 was due to the establishment of several seedings within the allotment. The grazing season was establish as May 1 to October 15.

3. In 1970 an Allotment Management Plan [AMP] was written for the allotment. It was a rest-rotation grazing system whereby one of the four native pastures would be completely rested each year and the seedings would be used on a deferred rotation system, using some in the spring and some in the fall. Upon completion of the AMP a 20% increase in grazing use was approved to begin the following grazing season (1971). The new grazing season was from May to October 31. Consequently, the 20% increase amounted to about a 10% increase in time and about 10% in numbers.

4. In 1975 it was determined by the permittees and the BLM that the rest rotation-grazing season on the native range was not working as well as had been expected, nor were the seedings responding well. Consequently, a revision of the AMP was incorporated to allow a deferred rotation grazing system on the 4 native pastures and a rest rotation grazing system on the seedings, although light use could be made in the rested seeding in the fall.

Some of the reasons for the changes included:

a. There was a large difference in the grazing capacities of the pastures, some pastures had four times as [much] forage, which didn't lend itself well to a rest-rotation grazing system.

b. There is an elevation difference in the pastures that caused cattle to be moved from a higher elevation to a lower elevation and then back to a higher elevation, or vice versa.

c. Cattle were allowed in the native pastures for 4-5 months at a time. The amended grazing system was followed from 1975 until 1990 with yearly modifications made, especially during the drought conditions of the late 1980s.

5. In 1990 an allotment evaluation was completed. In essence, this evaluation cited four problems: 1) The allotment was over-allocated and a 20% reduction was needed, 2) The riparian zones were being overused and needed rehabilitation, 3) The seedings were in a declining trend and needed immediate rest, and 4) Livestock were not being moved from pasture to pasture in an expedient manner.

Consequently, a new grazing season was established as May 15 to October 20 (about 14% of the reduction) and cattle numbers were reduced (about 6% of the reduction). The seedings were all rested from grazing during 1991 and 1992 by putting them in the Dale Pierce allotment. Each of the seedings have also had at least one additional year of complete rest since 1992. The use in the native range pastures have been reduced over the past 10 years by completely resting 3 of the 4 pastures in different years. The Cold Creek pasture is the only pasture that has not had at least 2 years of complete rest from cattle grazing since 1990, although it had minimal use (5%) in 1998.

Since 1990 grazing management on the allotment has been on a yearly schedule, and has needed to be modified due to fires, drought, and implementation of rangeland improvement projects.

6. In 1998, an allotment evaluation under the "Idaho Standards and Guidelines" format was begun. After three years of fieldwork and public participation, the evaluation was finalized last August. This evaluation noted that the riparian-wetland areas have improved since 1990. Approximately 24% of the sampled areas were in Proper Functioning Condition (PFC) vegetation-wise. About 76% is Functioning-at-Risk, but is making significant progress towards PFC.

There are, however, some issues that need to be resolved:

a. The majority of the riparian areas are not yet in PFC, which is the BLM's targeted goal.

b. The current AMP and grazing system is not adequate to significantly improve the riparian areas and needs to be updated.